

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2002-CE-35-AD; Amendment 39-12980; AD 2002-25-05]**

**RIN 2120-AA64**

### **Airworthiness Directives; Pilatus Britten-Norman Limited BN-2 and BN2A Mk. III Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that applies to all Pilatus Britten-Norman (Pilatus Britten-Norman) Limited BN-2 and BN2A Mk. III series airplanes. This AD requires you to inspect the universal joints on the pilot's and co-pilot's control column to determine the diameter of the shaft and replace any universal joint that is the wrong size. This AD is the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for the United Kingdom. The actions specified by this AD are intended to correct the installation of universal joints that have the wrong-sized shaft, which could result in failure of the pilot's and/or co-pilot's control column. Such failure could lead to loss of control of the airplane.

**DATES:** This AD becomes effective on February 3, 2003.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of February 3, 2003.

**ADDRESSES:** You may get the service information referenced in this AD from B-N Group Limited, Bembridge, Isle of Wight, United Kingdom PO35 5PR; telephone: +44 (0) 1983 872511; facsimile: +44 (0) 1983 873246. You may view this information at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-CE-35-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

#### *What Events Have Caused This AD?*

The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom, recently notified FAA that an unsafe condition may exist on all Pilatus Britten-Norman BN-2 and BN2A Mk. III series airplanes. The CAA reports that, during maintenance on one of the affected airplanes, an undersized universal joint was found. This installation of undersized universal joints is the result of a quality control problem.

#### *What Is the Potential Impact if FAA Took No Action?*

This condition, if not corrected, could cause failure of the pilot's and/or co-pilot's control column. Such failure could result in loss of control of the airplane.

#### *Has FAA Taken Any Action to This Point?*

We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to all Pilatus Britten-Norman BN-2 and BN2A Mk. III series airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on September 18, 2002 (67 FR 58737). The NPRM proposed to require you to inspect the universal joints on the pilot's and co-pilot's control column to determine the diameter of the shaft and replace any universal joint that is the wrong size.

#### *Was the Public Invited to Comment?*

The FAA encouraged interested persons to participate in the making of this amendment. We did not receive any comments on the proposed rule or on our determination of the cost to the public.

### **FAA's Determination**

#### *What Is FAA's Final Determination on This Issue?*

After careful review of all available information related to the subject presented above, we have determined that air safety and the public interest require the adoption of the rule as proposed except for minor editorial corrections. We have determined that these minor corrections:

- Provide the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

#### *What Are the Differences Between This AD, the Service Information, and the CAA AD?*

The CAA AD and the service information requires inspection and, if necessary, replacement of any universal joint that is not the correct size within the next 10 hours time-in-service (TIS) after the effective date of the AD. We are requiring you to inspect and, if necessary, replace within 30 days after the effective date of this AD. We do not have justification to require this action within the next 10 hours TIS. We use compliance times such as this when we have identified an urgent safety of flight situation. We believe that 30 days will give the owners or operators of the affected airplanes enough time to have the actions accomplished without compromising the safety of the airplanes.

## Cost Impact

### *How Many Airplanes Does This AD Impact?*

We estimate that this AD affects 135 airplanes in the U.S. registry.

### *What Is the Cost Impact of This AD on Owners/Operators of the Affected Airplanes?*

We estimate the following costs to accomplish the inspection:

<b>Labor cost per universal joint</b>	<b>Parts cost</b>	<b>Total cost per universal joint</b>	<b>Total cost on U.S. operators</b>
1 workhour x \$60 = \$60 (3 universal joints per airplane).	No parts required	\$60 (\$60 x 3 universal joints per airplane = \$180).	\$180 x 135 = \$24,300.

We estimate the following costs to accomplish any necessary replacements that will be required based on the results of the inspection. We have no way of determining the number of airplanes that may need such replacement:

<b>Labor cost per universal joint</b>	<b>Parts cost</b>	<b>Total cost per universal joint</b>
2 workhours x \$60 = \$120	\$2,000 per universal joint	\$120 + \$2,000 = \$2,120.

## Compliance Time of This AD

### *What Is the Compliance Time of This AD?*

The compliance time of this AD is "within the next 30 days after the effective date of this AD."

### *Why Is the Compliance Time Presented in Calendar Time Instead of Hours Time-in-Service (TIS)?*

This unsafe condition is not a result of the number of times the airplane is operated. The chance of this situation occurring is the same for an airplane with 10 hours time-in-service (TIS) as it is for an airplane with 500 hours TIS. For this reason, the FAA has determined that a compliance based on calendar time should be utilized in this AD in order to assure that the unsafe condition is addressed on all airplanes in a reasonable time period.

## Regulatory Impact

### *Does This AD Impact Various Entities?*

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

*Does This AD Involve a Significant Rule or Regulatory Action?*

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the final evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

**PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. FAA amends § 39.13 by adding a new AD to read as follows:

# AIRWORTHINESS DIRECTIVE

Aircraft Certification Service  
Washington, DC



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "[www.airweb.faa.gov/rgl](http://www.airweb.faa.gov/rgl)"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2002-25-05 Pilatus Britten-Norman Limited:** Amendment 39-12980; Docket No. 2002-CE-35-AD.

(a) *What airplanes are affected by this AD?* This AD affects the following airplane models, all serial numbers, that are certificated in any category:

## Models

BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, BN-2T-4R, BN2A MK. III, BN2A MK. III-2, and BN2A MK. III-3

(b) *Who must comply with this AD?* Anyone who wishes to operate any of the airplanes identified in paragraph (a) of this AD must comply with this AD.

(c) *What problem does this AD address?* The actions specified by this AD are intended to correct the installation of universal joints that have the wrong-sized shaft, which could result in failure of the pilot's and/or co-pilot's control column. Such failure could lead to loss of control of the airplane.

(d) *What actions must I accomplish to address this problem?* To address this problem, you must accomplish the following:

Actions	Compliance	Procedures
(1) Inspect all universal joints on the pilot's and co-pilot's control columns to determine the diameter of the shaft. (i) If the universal joint diameter is 1.154 to 1.155 inches, re-install into the airplane; and. (ii) If the universal joint diameter is not 1.154 to 1.155 inches in diameter, replace with a new universal joint that has the a diameter of 1.154 to 1.155 inches.	Inspect within the next 30 days after February 3, 2003 (the effective date of this AD). Replace prior to further flight after the inspection.	In accordance with B-N Group Ltd. Service Bulletin Number SB 284, Issue 1, dated May 9, 2002.
(2) Do not install any universal joint that is not 1.154 to 1.155 inches in diameter.	As of February 3, 2003 (the effective date of this AD).	In accordance with B-N Group Ltd. Service Bulletin Number SB 284, Issue 1, dated May 9, 2002.

(e) *Can I comply with this AD in any other way?* You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Standards Office, Small Airplane Directorate, approves your alternative.

Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Standards Office.

**Note 1:** This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) *Where can I get information about any already-approved alternative methods of compliance?*

Contact Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

(g) *What if I need to fly the airplane to another location to comply with this AD?* The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) *Are any service bulletins incorporated into this AD by reference?* Actions required by this AD must be done in accordance with B-N Group Ltd. Service Bulletin Number SB 284, Issue 1, dated May 9, 2002. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You may get copies from B-N Group Limited, Bembridge, Isle of Wight, United Kingdom PO35 5PR; telephone: +44 (0) 1983 872511; facsimile: +44 (0) 1983 873246. You may view copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**Note 2:** The subject of this AD is addressed in British AD Number 004-05-2002, dated May 30, 2002.

(i) *When does this amendment become effective?* This amendment becomes effective on February 3, 2003.

Issued in Kansas City, Missouri, on December 5, 2002.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

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